Public Noticed Permit Fact Sheet

General Information

Permit Number:	WI-0032018-07-0
Permittee:	WI Corporation of Seventh Day Adventists, Camp Wakonda, W8435 Cty Rd E, Oxford, WI 53952
Discharge Location:	Groundwater via seepage cells in the NE ¼ of the NW ¼, Section 17, T16N R8E, Marquette County, WI NE1/4 NW1/4, Section 17, T16N R8E, Marquette County, WI
Receiving Water:	Groundwater of the Upper Fox River Basin in Marquette County.
StreamFlow ($Q_{7,10}$):	N/A – Groundwater Discharge
Stream Classification:	
Daily Maximum Design Flow:	0.100 MGD
Significant Industrial Loading?	None
Operator at Proper Grade?	Based on NR 114, Wis. Adm. Code the facility is required to obtain and designate a certified wastewater treatment plant operator. Based on the treatment type, a subclass A4 for ponds, lagoons, and natural systems is appropriate for this facility. A compliance schedule is included in the permit for the facility to be in compliance with this requirement by 09/30/2022.
Approved Pretreatment Program?	N/A

Facility Description

The wastewater conveyance and treatment system serves a private summer camp/meeting facility (Camp Wakonda) with a capacity up to 5,000 people. The facility is used on an intermittent basis; the majority of use occurring during summer months with some limited uses during the rest of the year. Wastewater treatment is provided via a single stabilization pond/lagoon. Adequate detention time in the lagoon is utilized to stabilize the wastewater under natural biological processes. Once each spring, wastewater is distributed to a single seepage cell for further treatment in the soil and ultimate discharge to groundwater.

Wastewater is pumped from a lift station through a 6-inch diameter PVC sewer main. The sewer travels 1400 feet southwest from the camp, under CTH E, until it reaches a control manhole at the stabilization lagoon. The elevation difference between the lift station and lagoon inlet is 52.5 feet. The 1.85-acre stabilization lagoon is lined with a 20-mil PVC liner and has a capacity of 2.9×10^6 gallons. Wastewater is pumped to the lagoon throughout the year, then discharged via gravity flow to a single seepage cell, approximately 1.5 acres in size, usually from the first week of April through the first week of May. The distance from the lagoon to seepage cell is about 500 feet. The wastewater conveyance and treatment system were constructed around 1980.

Significant changes proposed in the upcoming permit term are as follows: 1) In this permit term, the permittee is required to monitor the influent monthly, regardless of flow volume, and 2) The permittee is required to monitor lagoon sludge once during the permit term for List 1 parameters. Also new in this permit term is a compliance schedule that requires the permittee submit an updated land treatment management plan.

Substantial Compliance Determination

Enforcement During Last Permit: No history of enforcement action.

After a desk top review of all discharge monitoring reports, CMARs, land app reports and a site visit on October 1, 2021 this facility has been found to be in substantial compliance with their current permit.

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period.** **2016-2021**	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**
701	30,000 gallons/day, 300,000 gallons/year. Facility sees the most use in the summer.	Representative influent samples shall be collected at the lagoon inlet.
001	40,000 gallons/day, 227,000 gallons per year. Discharge period is normally April and May. Flow is average in other permit terms; the permittee did not discharge to the seepage cells during the last permit term.	Effluent: Representative samples shall be collected at the storage lagoon prior to the seepage cell. Discharges generally occur during the months of April and May. The permittee shall notify the Department prior to discharging during any other month and shall comply with the monitoring requirements and limitations specified below.
002	Lagoon sludge has never been removed	Representative liquid sludge samples shall be collected once in 2023 from various locations and depths in the pond and composited for analysis per the table below.

1 Influent - Monitoring

Sample Point Number: 701- Influent to Lagoon

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Monthly	Total Monthly	
BOD5, Total		mg/L	Monthly	Grab	
Suspended Solids, Total		mg/L	Monthly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Nitrogen, Ammonia (NH3-N) Total		mg/L	Monthly	Grab	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Nitrogen, Nitrite + Nitrate Total		mg/L	Monthly	Grab	

Changes from Previous Permit:

In the previous permit there was language that allowed for no influent monitoring if the total monthly influent flow was less than 29,000 gallons. In this permit term, the permittee is required to monitor the influent monthly for the parameters above, regardless of influent flow volume.

Explanation of Limits and Monitoring Requirements

Influent monitoring is needed to assess loading to the facility and treatment performance. The required parameters and sampling frequency are appropriate for this type of land treatment system (ch NR 206, Wis. Adm. Code).

2 Land Treatment –Monitoring and Limitations

Sample Point Number: 001- Effluent

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Monthly	Total Monthly	
BOD5, Total	Monthly Avg	50 mg/L	2/Discharge	Grab	
Suspended Solids, Total		mg/L	2/Discharge	Grab	
pH Field		su	2/Discharge	Grab	
Nitrogen, Total Kjeldahl		mg/L	2/Discharge	Grab	
Nitrogen, Ammonia (NH3-N) Total		mg/L	2/Discharge	Grab	
Nitrogen, Nitrite + Nitrate Total		mg/L	2/Discharge	Grab	
Chloride		mg/L	2/Discharge	Grab	
Solids, Total Dissolved		mg/L	2/Discharge	Grab	

Changes from Previous Permit:

No changes.

Explanation of Limits and Monitoring Requirements

Requirements for land treatment of municipal wastewater are determined in accordance with ch. NR 206 Wis. Adm. Code.

The effluent monitoring frequency for all parameters with final effluent limits were considered & evaluated (in this case, BOD). Monitoring frequencies are based on the size and type of the facility and are established to best characterize effluent quality and variability, to detect events of noncompliance, and to ensure fairness and consistency in permits issued across the state. Requirements in administrative code (NR 108, 205, 210 and 214 Wis. Adm. Code) and Section 283.55, Wis. Stats. were considered, where appropriate, when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term. No changes were made to monitoring frequencies.

3 Land Application - Monitoring and Limitations

Municipal Sludge Description						
Sample Point	**Sludge Class (A or B)**	**Sludge Type (Liquid or Cake)**	**Pathogen Reduction Method**	**Vector Attraction Method**	**Reuse Option**	**Amount Reused/Disposed (Dry Tons/Year)**
002	N/A	Liquid	Sludge has never been removed from the lagoon/pond and is not planned this permit term.			
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? No						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? No						
Is a priority pollutant scan required? No						

Sample Point Number: 002- Lagoon/Pond Sludge

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Solids, Total		Percent	Once	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Once	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Once	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Once	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Once	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Once	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Once	Composite	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Lead Dry Wt	High Quality	300 mg/kg	Once	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Once	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Once	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Once	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Once	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Once	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Once	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Once	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Once	Composite	

Changes from Previous Permit:

Per s. NR 204.06(2)(c)(2) Wis. Adm. Code, a requirement has been added to the permit that the permittee monitor lagoon sludge once during the permit term (2023) for List 1.

Explanation of Limits and Monitoring Requirements

Requirements for land application of municipal sludge are determined in accordance with ch. NR 204 Wis. Adm. Code. Ceiling and high-quality limits for metals in sludge are specified in s. NR 204.07(5).

4 Compliance Schedules

4.1 Operator in Charge Proper Certification

Required Action	Due Date
Operator Certification & Notify the Department: By the due date, the permittee shall obtain an operator with proper certification for operation of ponds, lagoons, and natural systems. Under Chapter NR 114, Wisconsin Administrative Code, Subclass A4 certification is necessary for this facility. The permittee shall notify the department in writing of the designated operator in charge with the proper certification.	09/30/2022

4.2 Land Treatment Management Plan

A management plan is required for the land treatment system.

Required Action	Due Date
Land Treatment Management Plan Submittal: Submit an update to the management plan to optimize the land treatment system performance and demonstrate compliance with ch. NR 206, Wis. Adm. Code. The land treatment system shall be operated in accordance with the approved management plan.	03/31/2025

Explanation of Compliance Schedules

Operator in Charge Certification: Based on NR 114, Wis. Adm. Code the facility is required to obtain and designate a certified wastewater treatment plant operator. Based on the treatment type, a subclass A4 for ponds, lagoons, and natural systems is appropriate for this facility.

Land Treatment Management Plan: All land disposal systems require a land treatment management plan per NR 206.07(2)(h). The permittee's plan most recent plan is dated 03/20/1979, therefore an updated plan is required.

Special Reporting Requirements

The only special requirement is that the permittee notify the Department prior to initiating discharges to the seepage cells during any month other than April or May. The intent of this requirement is to ensure that DMR forms can be provided for reporting discharges during other months that are not specifically identified in the permit.

Other Comments:

- Publishing Newspaper: Marquette County Tribune, PO Box 286, Black Earth, WI 53515-0286
- No monitoring wells are required because there is little potential for groundwater contamination. Further attenuation in the soil and groundwater is expected and there is little potential for exceedances of the preventive action limits (PALs) or enforcement standards (ESs) for nitrite + nitrate nitrogen, total nitrogen, chloride or total dissolved solids at a point of standards application.

Attachments: None

Proposed Expiration Date: March 31, 2027

Justification Of Any Waivers From Permit Application Requirements

N/A

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Date: February 3, 2022

cc: SWAMP